

U. S. Patent Application No.: 10/699,963
Amendment Dated April 24, 2006
Reply to Office Action of March 23, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the above-captioned patent application:

Listing of Claims:

1. (Currently Amended) A high voltage surge protection device adapted for use in a CATV system that includes a coaxial cable having a central conductor, an outer conductor concentrically positioned in surrounding relation thereto, and a dielectric layer disposed between the central and outer conductors, said surge protection device comprising:

a housing having an input end and a body portion that defines an internal cavity;

an electronic electrical component positioned entirely within said cavity; and

an electrically conductive, surge protective element positioned between said input end and said electronic electrical component, and in electrically operative communication with said body portion;

wherein said surge protective element is a ring, and where said ring is configured to surround and to not make physical contact with a conductive pin included within said electrical component and where a portion of said ring is in physical and electrical contact with a shoulder formed within said body portion of said housing.

2. (Previously Presented) The high voltage surge protection device of claim 1, wherein said surge protective element includes at least one prong extending radially inward from said ring.

3. (Previously Presented) The high voltage surge protection device of claim 1, wherein said surge protective element is of a width that is about 0.020 inches.

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4. (Currently Amended) The high voltage surge protection device of claim 1, wherein said ~~electrical component~~ includes a conductive pin ~~is~~ extending forward ~~therefrom~~ from said electrical component and is electrically connected with the central conductor of the coaxial cable, and said ring is disposed such that said conductive pin is substantially centered within said ring.

5. (Canceled).

6. (Currently Amended) A method for providing an alternate path to ground of a high voltage surge carried by a coaxial cable in a CATV distribution system, prior to the surge passing through a coaxial cable connector having an input end, a body portion defining an internal cavity, an electrical component positioned within the cavity, and an input pin extending forward from the electrical component toward the input end and electrically connected to a central conductor of the coaxial cable, said method comprising the steps of:

positioning an electrically conductive ring-shaped surge protective element entirely within said cavity and physically and electrically connected to said body portion of said connector; and where said ring-shaped surge protective element is configured to surround and to not make physical contact with an input pin; and

maintaining an air gap of predetermined size between said surge protective element and said input pin.

7. (Previously Presented) The method of claim 6, wherein said ring-shaped surge protective element includes at least one prong extending radially inward from said ring-shaped surge protective element toward said input pin.

Claims 8-11 (Canceled).

12. (Previously Presented) The high voltage surge protection device of claim 2, wherein said at least one prong is shaped substantially as a triangle.

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13. (Previously Presented) The high voltage surge protection device of claim 2, wherein said at least one prong is shaped substantially as a curved element.

14. (Previously Presented) The method of claim 7, wherein said electrical component includes an input pin extending forward therefrom which is electrically connected to a central conductor of a coaxial cable, and said ring-shaped surge protective element is disposed such that said input pin is substantially centered within said ring-shaped surge protective element.

15. (Currently Amended) A high voltage surge protection device adapted for use in a CATV system that includes a coaxial cable having a central conductor, an outer conductor concentrically positioned in surrounding relation thereto, and a dielectric layer disposed between the central and outer conductors, said surge protection device comprising:

a housing having an input end and a body portion that defines an internal cavity;
an electronic electrical component positioned entirely within said cavity;
an input conductor that provides electrical contact between said input end and said electronic electrical component;
an electrically conductive, surge protective element positioned between said input end and said electronic electrical component, and in electrical contact with said body portion; and
wherein said surge protective element includes a ring shaped portion that surrounds said input conductor, said ring shaped portion not in physical contact with said input conductor; and wherein said ring shaped portion is in physical and electrical contact with a shoulder formed within said body portion of said housing.

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16. (Previously Presented) A method for providing an alternate path to ground of a high voltage surge carried by a coaxial cable in a CATV distribution system, prior to the surge passing through a coaxial cable connector having an input end, a body portion defining an internal cavity, an electrical component positioned within the cavity, and an input pin extending forward from the electrical component toward the input end and electrically connected to the central conductor of the coaxial cable, said method comprising the steps of:

positioning an input pin that provides electrical contact to an electrical component located within a cavity defined by a body portion of a connector;

positioning an electrically conductive ring-shaped surge protective element, made entirely of one conductive material, entirely within said cavity so that it surrounds said input pin and so that it physically and electrically connects to said body portion of said connector; and

maintaining an air gap of predetermined size between said surge protective element and said input pin.